UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,175	03/30/2001	Scott Shyh Guang Yen	M-11437 US	8273

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NIXON PEABODY, LLP
401 9TH STREET, NW
SUITE 900
WASINGTON, DC 20004-2128

EXAMINER
HECK, MICHAEL C

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 December 2003 and 10 February 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-4 and 6-17_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4 and 6-17_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _10 February 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _19_.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This Final Office Action is responsive to applicant's amendment filed 16 December 2003 and supplemental amendment filed 10 February 2004. Applicant's amendment of 16 December 2003 and supplemental amendment of 10 February 2004 amended claims 1, 6-8 and 11, canceled claim 5, and added claims 15-17. Currently, claims 1-4 and 6-17 are pending.

Response to Amendment

2.   The objection to the drawing, figure 3, in the First Office Action is withdrawn in response to the applicant's amendment to the drawing.

3.   The objection to the specification in the First Office Action is withdrawn in response to the applicant's amendment to the specification.

4.   The 35 USC 112 first paragraph rejection in the first Office Action for claim 6 are withdrawn in response to the applicant's amendment to claim 6.

Response to Arguments

5.   Applicant's arguments with respect to claims 1, 6, 7, 15, 16, 17 have been considered but are moot in view of the new grounds of rejection. Applicant asserts that Barkley (U.S. Patent 6,088,679) does not disclose or suggest the amended features of claims 1, 6, and 7, nor does it disclose or suggest the features of new claims 15-17. The 35 U.S.C. 102(a) and 103(a) rejection below disclose those features.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this
> or a foreign country, before the invention thereof by the applicant for a patent.

7.   **Claims 1-4, 16 and 17** are rejected under 35 U.S.C. 102(a) as being anticipated by

Barkley (U.S. Patent 6,088,679). Barkley discloses a method for incorporating human-based

activities in business process models comprising:

-   [Claim 1] defining an activity state, the activity state corresponding to a human-based
    or manual step (col. 4, lines 48-55, col. 5, lines 5-8, 32-36, and 56 through to col. 6,
    line 5, Barkley teaches a business process to be automated is partitioned into a
    sequence of sequential routing segments and parallel routing segments where a
    sequential routing segment has one or more activities and a parallel routing segment
    has two or more activities. An activity describes a piece of work that forms one
    logical step within a process and is typically the smallest unit of work which is
    scheduled by a workflow engine. The workflow specified by the process definition is
    managed by a workflow management system that enacts each segment in the order
    specified by that process definition. RBAC (Role-Based Access Control) defines
    membership of individuals in groups, i.e. to assign individuals to roles, assign
    permission to roles, and then activate the roles with respect to the process at
    appropriate points in the sequence; and is used as the basis for a workflow
    management system.);

-   identifying one or more performers for the activity state (col. 6, lines 23-41, Barkley
    teaches that in a RBAC system, access to objects is managed at a level corresponding
    closely to the organization's structure. Each user is assigned one or more "roles", and
    each "role" is assigned one or more "permissions" that are authorized for users in that
    role. The operations provided for each role correspond to the duties and
    responsibilities of the person having that role in the organization.); and

-   designating the activity state as reassignable to indicate that the activity state may be
    moved between performers (col. 4, lines 26-29, Barkley teaches changes in the duties
    and responsibilities of individuals as they change jobs assignments are greatly
    simplified, as their role memberships are simply reassigned; the workflow process is
    unaffected).

- [Claim 2] defining reference data, the reference data being information that is to be made available to the performers of the activity state (col. 6, lines 35-41, Barkley teaches each role has access to stored documents).

- [Claim 3] the reference data is made exclusively available to the performers of the activity state (col. 5, lines 20-31, Barkley teaches a role has authority and responsibility, therefore, permission(s) associated with that role grants access to a resource).

- [Claim 4] the reference data is also made available to the performers of a second activity state (col. 6, line 63 through to col. 7, line 37, Barkley teaches parallel routings where users are assigned unique roles and perform their respective task with the information concurrently).

- [Claim 16] defining an activity state, the activity state corresponding to either an automated step or a human-based step (col. 4, lines 48-55, col. 5, lines 5-8, 32-36, and 56 through to col. 6, line 5, Barkley teaches a business process to be automated is partitioned into a sequence of sequential routing segments and parallel routing segments where a sequential routing segment has one or more activities and a parallel routing segment has two or more activities. An activity describes a piece of work that forms one logical step within a process and is typically the smallest unit of work which is scheduled by a workflow engine. The workflow specified by the process definition is managed by a workflow management system that enacts each segment in the order specified by that process definition. RBAC (Role-Based Access Control) defines membership of individuals in groups, i.e. to assign individuals to roles, assign permission to roles, and then activate the roles with respect to the process at appropriate points in the sequence; and is used as the basis for a workflow management system.); and

- if the activity state is defined as an automated step, performing the activity to be achieved is the step (col. 4, line 66 through to col. 5, line 2, Barkley teaches an invoked application as a workflow application invoked by the workflow management system to automate an activity, fully or in part, or to support a workflow participant in processing a work item), and

- if the activity state is defined as a human based step, identifying one or more performers for the activity state (col. 6, lines 23-41, Barkley teaches that in a RBAC system, access to objects is managed at a level corresponding closely to the organization's structure. Each user is assigned one or more "roles", and each "role" is assigned one or more "permissions" that are authorized for users in that role. The operations provided for each role correspond to the duties and responsibilities of the person having that role in the organization.).

- [Claim 17] receiving a event (col. 4, lines 9-29, Barkley teaches a business process can be partitioned into a sequential or parallel routing segment that has one or more activities. The workflow management system enacts each segment in the order specified by the process definition.);

- causing a business process object to transition to an activity state corresponding to the human based event (col. 4, lines 48-55, col. 5, lines 5-8, 32-36, and 56 through to col. 6, line 5, Barkley teaches a business process to be automated is partitioned into a sequence of sequential routing segments and parallel routing segments where a sequential routing segment has one or more activities and a parallel routing segment has two or more activities. An activity describes a piece of work that forms one logical step within a process and is typically the smallest unit of work which is scheduled by a workflow engine. The workflow specified by the process definition is managed by a workflow management system that enacts each segment in the order specified by that process definition. RBAC (Role-Based Access Control) defines membership of individuals in groups, i.e. to assign individuals to roles, assign permission to roles, and then activate the roles with respect to the process at appropriate points in the sequence; and is used as the basis for a workflow management system.);

- identifying one or more performers for the human based event (col. 6, lines 23-41, Barkley teaches that in a RBAC system, access to objects is managed at a level corresponding closely to the organization's structure. Each user is assigned one or more "roles", and each "role" is assigned one or more "permissions" that are authorized for users in that role. The operations provided for each role correspond to the duties and responsibilities of the person having that role in the organization.); and

- creating a task for each performer, wherein each performer can trigger additional events as a result of task operation, as needed (col. 4, lines 9-29 and col. 6, lines 34-41 and 60-62, Barkley teaches the RBAC is used to define membership of individuals in groups, i.e. to assign individuals to roles, and then to activate the roles with respect to the process at appropriate points in the sequence. The subjects can then perform operations as assigned to the roles. In this connection, "operations: includes "permissions" required to perform certain activities defined as part of the workflow. When all activities in the sequential routing segment have been completed in the order specified, the next segment in the workflow is processed.).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   Claim **6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkley (U.S. Patent No. 6,088,679) in view of Kiely (Kiely, XML: More Than Just A Quick Fix, InformationWeek Online, 8 February 1999 [GOOGLE]). Barkley discloses a method for incorporating human-based activities in business process models but fails to disclose the business process model is created using Uniform Modeling Language constructs. Barkley teaches the Workflow Management System is a system that defines, creates and manages the execution of workflows through the use of software which is able to interpret the process definition, interact with the workflow participants and, where required, invoke the use of information technology tools and applications (col. 5, lines 50-55). Kiely teaches the Uniform Modeling Language as fast becoming the standard means of modeling software projects (Para 20). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use the Uniform Modeling Language of Kiely with the teachings of Barkley because Barkley teaches an improved automation of business processes carried out substantially or entirely on computer systems (col. 1, lines 10-15). Time is money to businesses. Software specifically designed for a type of application minimizes the time for programming. The Uniform Modeling Language is designed for modeling software projects, therefore, as applied to business model projects, will minimize the programming time resulting in reduced cost and cycle time.

10.   **Claims 7-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkley (U.S. Patent No. 6,088,679) in view of Lowery (Lowery, Managing Projects With Microsoft

Project 4.0, Van Nostrand Reinhold, New York, 1994, p. 5 and 104). Barkley discloses a

method for incorporating human-based activities in business process models comprising:

- [**Claim 7**] receiving an event (col. 4, lines 9-29, Barkley teaches a business process
  can be partitioned into a sequential or parallel routing segment that has one or more
  activities. The workflow management system enacts each segment in the order
  specified by the process definition.);

- causing a business process object to transition to an activity state corresponding to
  the event (col. 4, lines 48-55, col. 5, lines 5-8, 32-36, and 56 through to col. 6, line 5,
  Barkley teaches a business process to be automated is partitioned into a sequence of
  sequential routing segments and parallel routing segments where a sequential
  routing segment has one or more activities and a parallel routing segment has two or
  more activities. An activity describes a piece of work that forms one logical step
  within a process and is typically the smallest unit of work which is scheduled by a
  workflow engine. The workflow specified by the process definition is managed by a
  workflow management system that enacts each segment in the order specified by
  that process definition. RBAC (Role-Based Access Control) defines membership of
  individuals in groups, i.e. to assign individuals to roles, assign permission to roles,
  and then activate the roles with respect to the process at appropriate points in the
  sequence; and is used as the basis for a workflow management system.);

- identifying one or more performers for the activity state (col. 6, lines 23-41,
  Barkley teaches that in a RBAC system, access to objects is managed at a level
  corresponding closely to the organization's structure. Each user is assigned one or
  more "roles", and each "role" is assigned one or more "permissions" that are
  authorized for users in that role. The operations provided for each role correspond
  to the duties and responsibilities of the person having that role in the organization.);

- creating a task for each performer (col. 4, lines 9-29 and col. 6, lines 34-41, Barkley
  teaches the RBAC is used to define membership of individuals in groups, i.e. to
  assign individuals to roles, and then to activate the roles with respect to the process
  at appropriate points in the sequence. The subjects can then perform operations as
  assigned to the roles. In this connection, "operations: includes "permissions"
  required to perform certain activities defined as part of the workflow.);

Barkley fails to teach waiting for each task to be completed within an allotted time period.

Barkley does teach workflow management carried out substantially or entirely on a computer

system (col. 1, lines 11-14). Lowery teaches a computer-based project management system that

calculates the schedule and links tasks (p. 5 and 104). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use the project scheduling capability of Lowery with the teachings of Barkley because Barkley teaches a business process is a set of one or more linked procedures or activities which collectively realize a business objective (col. 4, lines 61-65). Time management is critical for managing projects that require completions at a specified point in time. Marketing determines the most opportune time to introduce new products and communicates that requirement to management. Management must then accomplish the product development by the prescribed timeframe in order to maximize profit potential. Therefore, utilizing a project scheduling system allows management to view the total requirements and ascertain whether or not the project will complete on time.

- [Claim 8] if the allotted time period expires causing the business process object to transition from the activity state (Barkley: col. 8, line 65 through to col. 9, line 12, Barkley teaches the workflow process from identification of segments, roles, activities, and assignment of individuals to completion of operation and deactivation of roles.)

- [Claim 9] providing each performer with reference data for the activity state (Barkley: col. 6, lines 35-41, Barkley teaches each role has access to stored documents).

- [Claim 10] the reference data is made exclusively available to the performers of the activity state (Barkley: col. 5, lines 20-31, Barkley teaches a role has authority and responsibility, therefore, permission(s) associated with that role grants access to a resource).

- [Claim 11] the reference data is also made available to the performers of a second activity state (Barkley: col. 6, line 63 through to col. 7, line 37, Barkley teaches parallel routings where users are assigned unique roles and perform their respective task with the information concurrently).

- [Claim 12] the step of retrieving modified reference data from one or more of the performers of the activity state (Barkley: col. 6, line 63 through to col. 7, line 37, Barkley teaches sequential routings where users are assigned unique roles and

perform their respective task with the information they receive from the previous activity.)

- [Claim 13] the step of conditionally selecting a transition out of the activity state based on the retrieved modified reference data (Barkley: col. 7, line 52 through to col. 8, line 64, Barkley teaches via an example the role once assigned performs the activity. The successful completion on the activity results in the creation of the next activity and removal of the completed role from the assignment allowing the new activity to proceed. The new activity receives the first completed activity information to complete their role.).

- [Claim 14] receiving a second event; and applying the second event to the activity state only if the event is targeted to the activity state (Barkley: col. 7, line 52 through to col. 8, line 64, Barkley teaches via an example the role once assigned performs the activity. The successful completion on the activity results in the creation of the next activity and removal of the completed role from the assignment allowing the new activity to proceed. The new activity receives the first completed activity information to complete their role. All activities are related to one task.).

- [Claim 15] selecting modified reference data made by at least one performer and merging it with the associated business process object (col. 5, lines 3-11, and col. 6, lines 35-41, Barkley teaches each role has access to stored documents. Subjects perform operations as assigned to the roles where "operations" includes "permissions". Permissions describe the type of interactions a subject can have with an object, a passive entity that contains or receives information.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (703) 305-8215. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (703) 305-9643.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Or faxed to:

(703) 872-9306   [Official communications; including After Final communications labeled "**Box AF**"]

(703) 746-9419   [Informal/Draft communication, labeled "**PROPOSED**" or "**DRAFT**"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, Virginia, and the 7th floor receptionist.

mch
7 April 2004

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER